

137522-1

REMARKS

Claims 1-27 are pending in the present Application. Claims 2 and 5 have been cancelled, Claims 1, 3, and 4 have been amended, leaving Claims 1, 3-4, and 6-27 for consideration upon entry of the present Amendment.

Claim 1 is originally filed Claim 2 rewritten as an independent claim; and Claim 4 is originally filed Claim 4 rewritten as an independent claim.

The Specification has been amended to correct certain typographical errors, as explained in detail below. No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

IDS

An information disclosure statement was filed on September 1, 2004. Applicants respectfully request that the Examiner return a signed and initialed copy of the PTO-1449 form acknowledging that the Examiner has considered the art cited therein.

Specification

In reviewing the specification, Applicants noted a few minor informalities in the specification. More particularly, in paragraph [0022], bisphenol-A was mistakenly described as an example of an aromatic polycarbonate. However, it is readily understood by those skilled in the art that an aromatic polycarbonate can be made using bisphenol-A. Applicants have amended the specification to delete the reference to bisphenol-A being an example of an aromatic polycarbonate. Additionally, in paragraph [0024], the misplaced word "suitable" has been deleted from the first sentence of the paragraph. In paragraphs [0031] and [0063], it is noted that the omitted word "is" has been added to correct the grammar of each respective sentence in these paragraphs. In paragraph [0079], the spelling of the word "minimized" has been corrected. These amendments place the entire case in a better condition for allowance. As such, Applicants respectfully request that they be entered.

137522-1

Claim Rejections Under 35 U.S.C. § 102(e)

Claims 1-27 stand rejected under 35 U.S.C. § 102(e), as allegedly anticipated by U.S. Published Patent Application No. 2003/0065130 to Hahnsen et al. Applicants respectfully traverse this rejection.

To anticipate a claim, a reference must disclose each and every element of the claim.

Lewmar Marine v. Varient Inc., 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987).

Hahnsen et al. teach that

the condensation of polycarbonate, characterized in that polycarbonates may be condensed in the melt, usefully with the addition of bisphenols or oligocarbonates with OH terminal groups to accelerate the reaction, optionally using catalysts to obtain polycarbonates, which have a higher molecular weight than the starting polycarbonate.

(Paragraph [0012]).

Absent in Hahnsen et al. is any teaching (express or inherent) of adjusting the OH group concentration of the polycarbonate waste component, wherein the OH group concentration is adjusted before being subjected to either of the transesterification reaction or the polycondensation reaction. Rather as noted above, Hahnsen et al. teach the addition of bisphenols or oligocarbonates with OH terminal groups to accelerate the condensation reaction. Moreover, Hahnsen et al. appears to be adjusting the OH concentration in the melt as part of the condensation reaction. (Paragraph [0018].) Accordingly, Hahnsen et al. at least fail to teach adjusting the OH group concentration of the polycarbonate waste component before the polycarbonate waste component is subjected to either of the transesterification reaction or the polycondensation reaction. For at least this reason, independent Claim 1 (i.e., originally filed Claim 2 rewritten as an independent claim) is not anticipated and is allowable over Hahnsen et al. Moreover, as dependent claims from an allowable independent claim, Claims 3 and 6-15, are, by definition, also allowable.

With regards to independent Claim 4 (i.e., originally filed Claim 4 rewritten as an independent claim), it is noted that Hahnsen et al. at least fail to teach adjusting the OH group concentration of the polycarbonate waste component during the transesterification reaction. More particularly, Hahnsen et al. teach throughout their disclosure the condensation of polycarbonate and teach that bisphenols or oligocarbonates with OH terminal groups to

137522-1

accelerate the reaction (See paragraph [0012]). In other words, Hahnsen et al. teach that polycarbonate can initially be made by an interfacial or melt transesterification process, the polycarbonate is used, recycled, and condensed to form a new polycarbonate. Absent is any teaching of adjusting the OH group concentration of polycarbonate waste component during the transesterification reaction. For at least this reason, independent Claim 4 is not anticipated and is allowable over Hahnsen et al.

With regards to independent Claim 16, the Examiner alleged that

the reference [Hahnsen et al.] discloses a process for making a high molecular weight (co)polymer resin comprising (i) obtaining at least one member selected from the group low molecular weight residue (weight average molecular weight 15,000 to 30,000) of aromatic (co)polycarbonate production, this would be inclusive of applicants prepolymerization composition. Further the mixing of the waste composition and the prepolymerization composition may be anticipated by the recylate disclosed in the reference.

(Office Action, page 6).

First, it is noted that Hahnsen et al. fail to teach "introducing a dihydroxy compound and a carbonate diester to a mixing tank to form a mixing tank composition". Rather, Hahnsen et al. teach a process where at least one member of "aromatic (co)polycarbonate production, waste of (co)polycarbonate production, remainders of (co)polycarbonate production and (co)polycarbonate recylate" are melted in a vessel to form a melt. (Abstract). In other words, Hahnsen et al. is silent on a process that makes a prepolymerization composition that is combined with a melted polycarbonate waste component. Moreover, Hahnsen et al. at best teach making polycarbonate by melting polycarbonate.

Furthermore, it appears that the Examiner is arguing that the polycarbonate recylate of Hahnsen et al. is a teaching of forming a prepolymerization composition (e.g., "introducing a dihydroxy compound and a carbonate diester to a mixing tank to form a mixing tank composition..."), because at one time the polycarbonate would have been made by such a process. However, Hahnsen et al. do not teach the complete process of making a prepolymerization composition that is combined with the melted polycarbonate waste component. In other words, Hahnsen et al. teach a method of making polycarbonate from existing (used/recycled) polycarbonate. They do not teach, Applicants' independent Claim 16 is directed to a method of recycling polycarbonate resin waste comprising, *inter alia*, introducing a

137522-1

dihydroxy compound and a carbonate diester to a mixing tank to form a mixing tank composition; directing the mixing tank composition to a prepolymerization tank to form a prepolymerization composition; melting a polycarbonate waste component, wherein the polycarbonate waste component has an OH group concentration and comprises polycarbonate resin waste; combining the prepolymerization composition with the melted polycarbonate waste component to form a combination; adjusting the OH group concentration of the polycarbonate waste component; polymerizing the combination to form a polycarbonate product; and extruding the polycarbonate product.

For at least the reason that Hansen et al. fail to teach the claimed elements relating to forming a prepolymerization composition and combining the prepolymerization composition with the melted polycarbonate waste, Applicants' independent Claim 16 is not anticipated and is allowable over Hansen et al. Moreover, as dependent claims from an allowable independent claim, Claims 17-27, are, by definition, also allowable.

Claims 16 stand rejected under 35 U.S.C. § 102(e), as allegedly anticipated by Japanese Kokai Publication no. 7-316280 (Machine translation and abstract). Applicants respectfully traverse this rejection.

First, it is noted that a machine translation is not an exact translation. Nevertheless, in relying upon the machine translation submitted by the Examiner, Applicants respectfully submit that Applicants' independent Claim 16 is not anticipated by the Japanese reference.

More particularly, as noted by the Examiner, the Japanese reference teaches the depolymerization of an aromatic polycarbonate resin waste to dihydroxy compounds or diaryl carbonates, which are recovered. The recovered dihydroxy compounds and diaryl carbonates can then be used to make polycarbonate. However, the Japanese reference at least fails to teach combining a prepolymerization composition with melted polycarbonate waste composition. Moreover, the Japanese reference is completely silent on teaching "adjusting the OH group concentration of the polycarbonate waste component" as claimed by Applicants. For at least these reasons, Applicants' independent Claim 16 is not anticipated by and is allowable over the Japanese reference.

137522-1

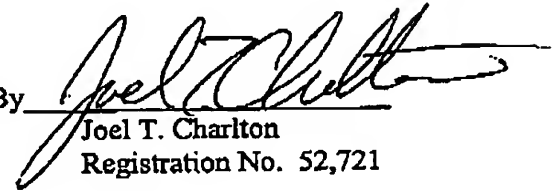
It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0862.

Respectfully submitted,

CANTOR COLBURN LLP

By



Joel T. Charlton
Registration No. 52,721

Date: October 29, 2004
Telephone (860) 286-2929
Facsimile (860) 286-0115
Customer No.: 43248